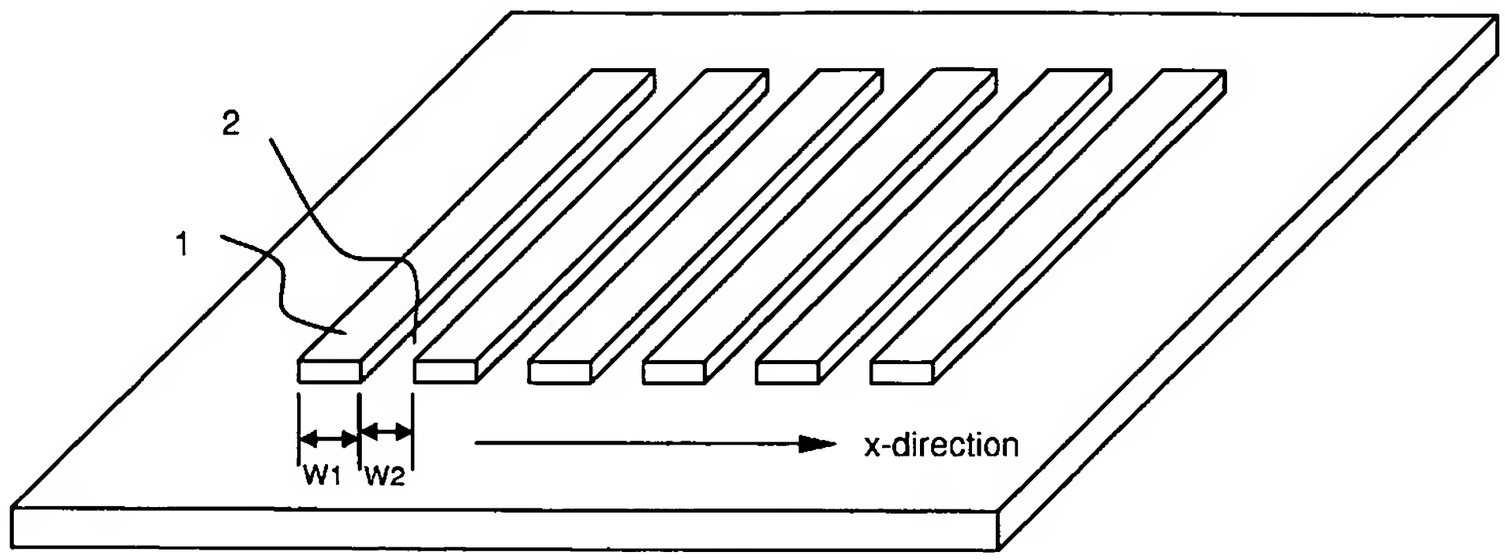

Figure 1a. A perspective view of a diffractive grating consisting of the repetitive elongated Element 1 and 2. The total width of the 2 elements W1 + W2 = constant.

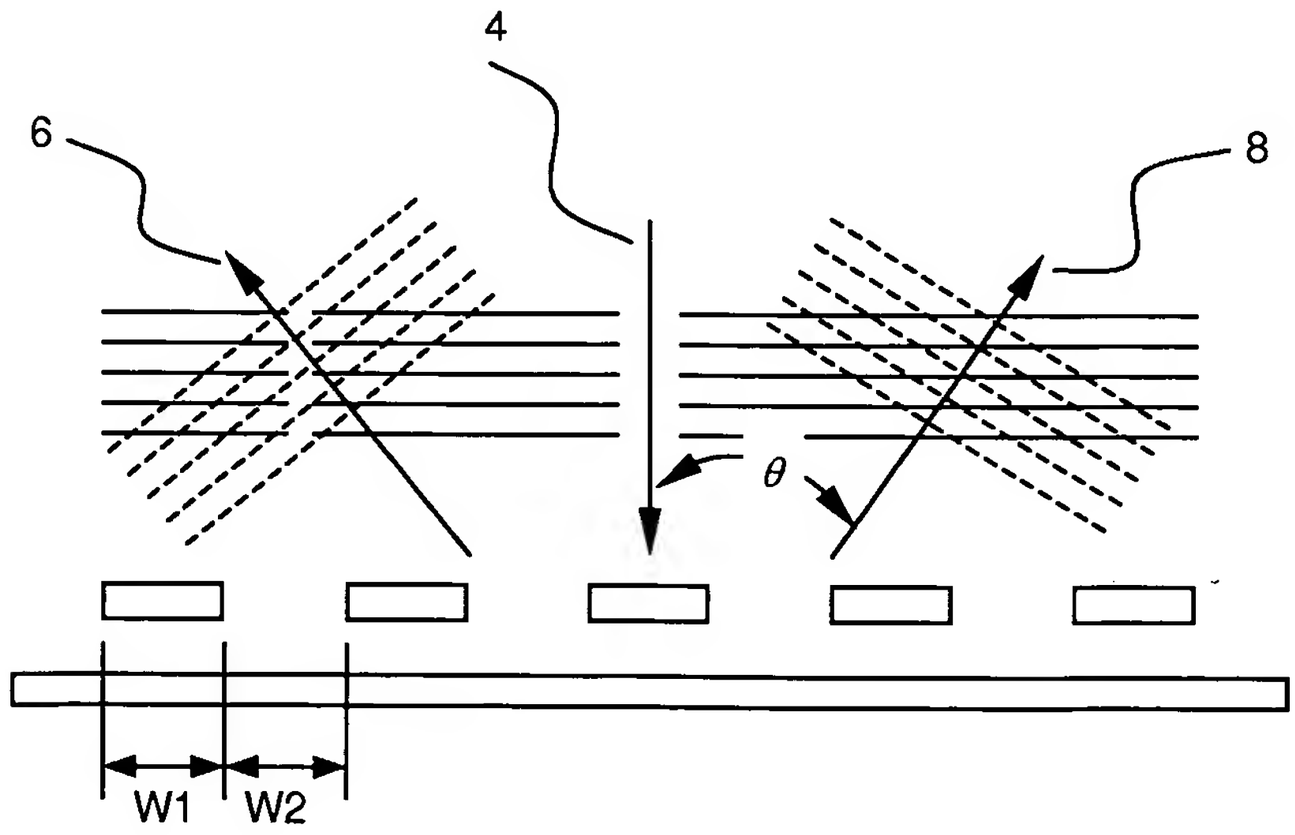

Figure 1b. A diffractive grating diffracts the incoming wave 4 into +1 order plane wave 6 and -1 order plane wave 8.

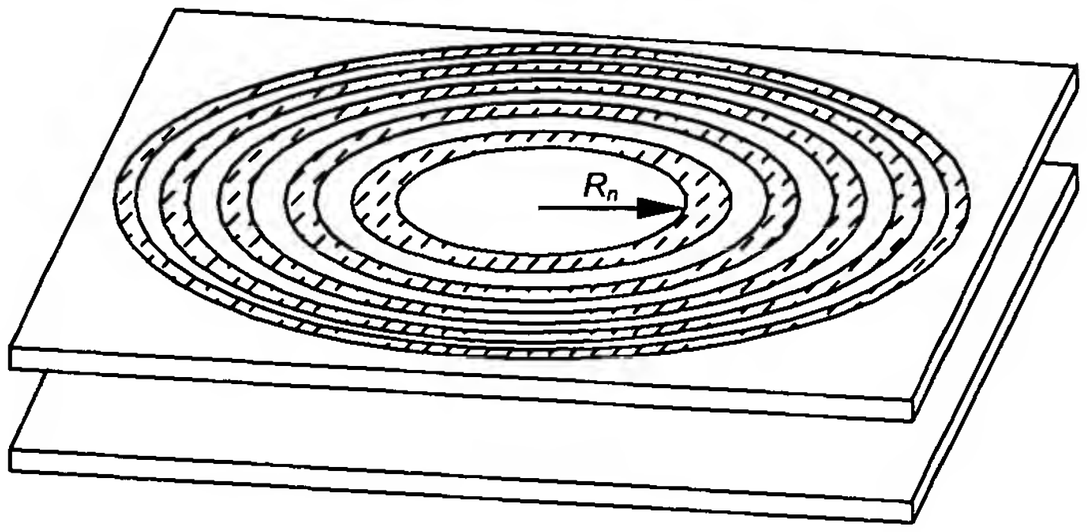

Figure 2a. A Fresnel zone plate where R_n, the radius of the *n*th zone, is determined by the zone plate equation.

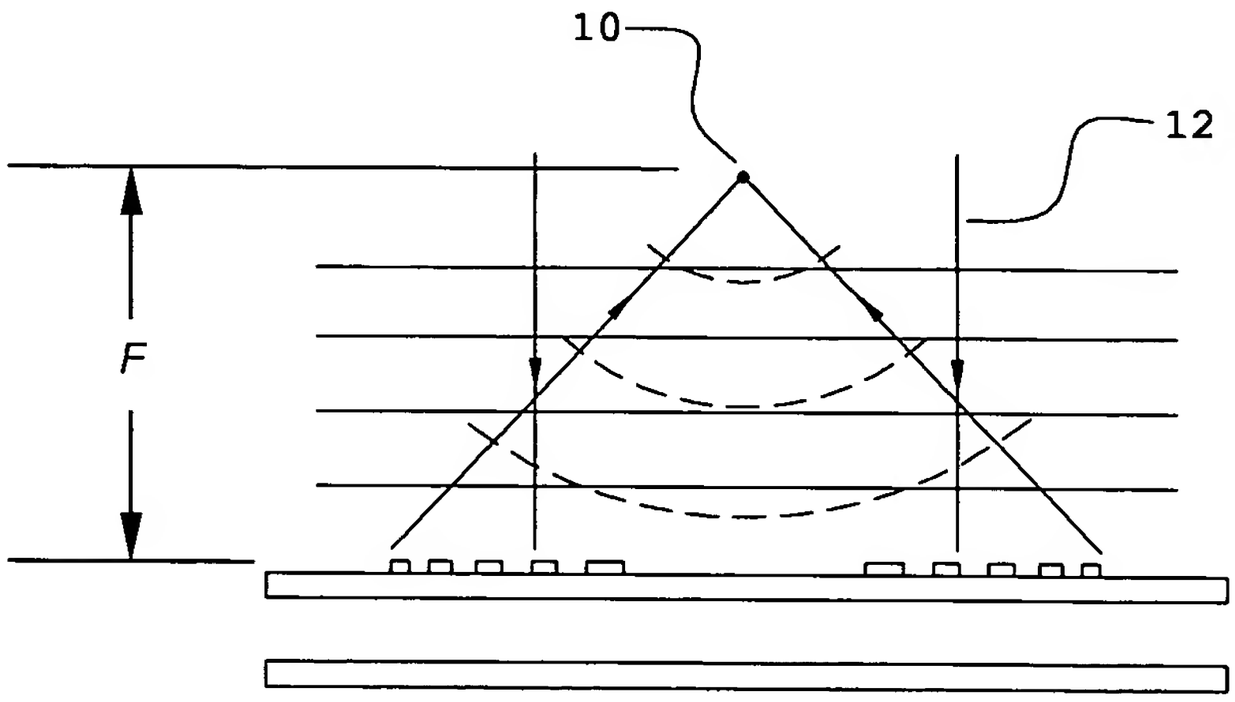

Figure 2b. A Fresnel zone plate functions as a lens and focuses the incoming wave 12 into a focal point 10. *F* is the focal point of the zone plate.

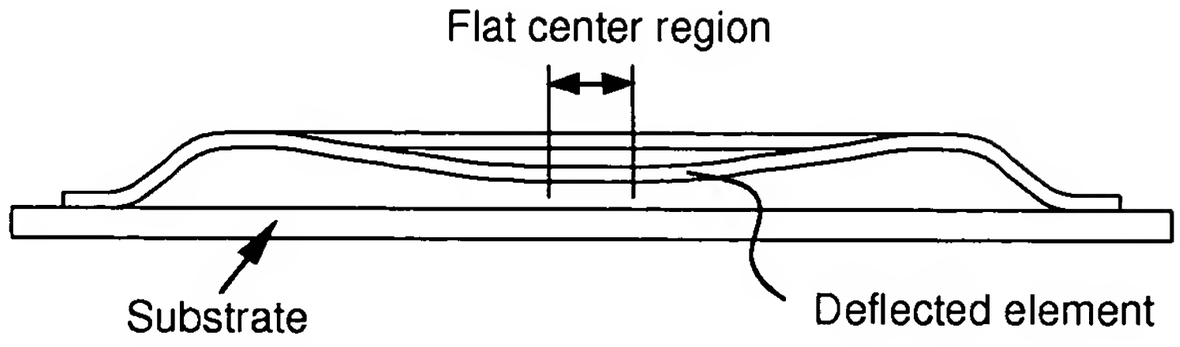

Figure 3a. A diffractive grating modulator in the deflected state. Only the small central region of the deflected element can be used for diffracting waves.

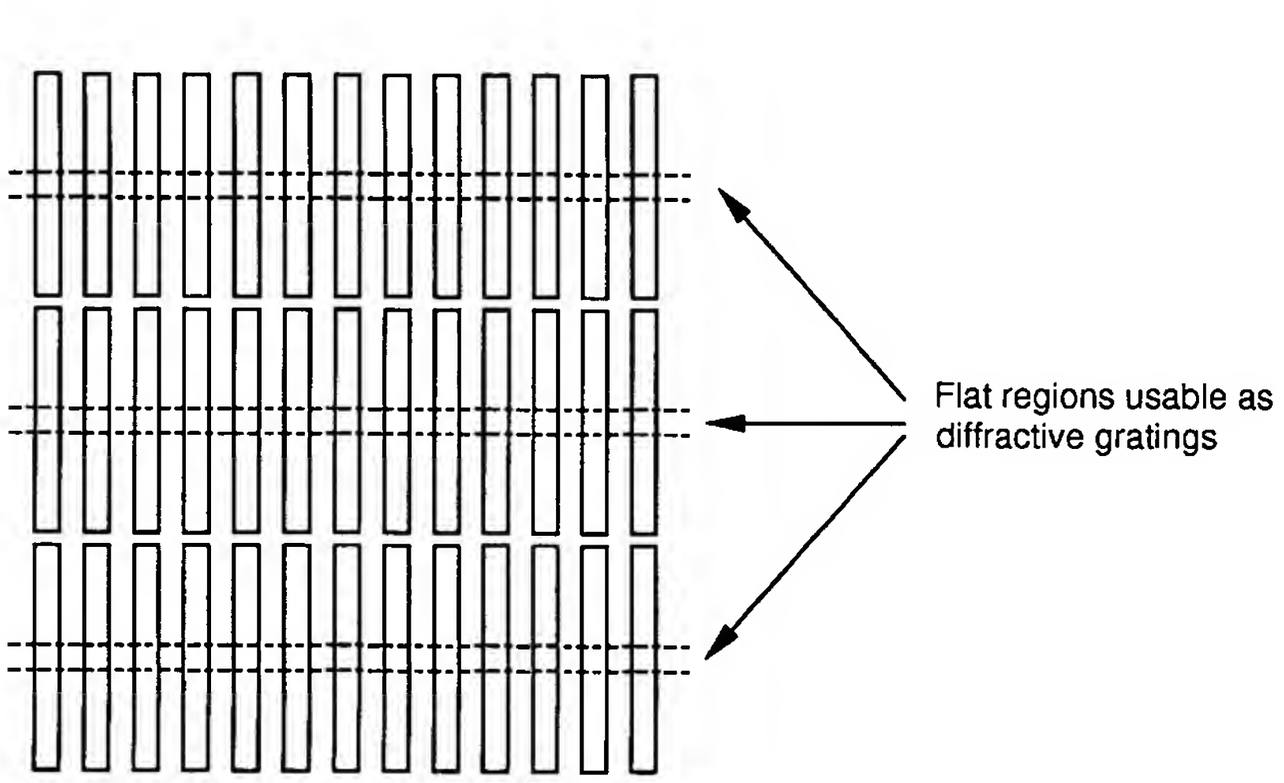

Figure 3b. Top view of an example two-dimensional diffractive grating modulator having three rows of linear diffractive grating modulators. Only the small central flat regions can be used for diffracting waves, therefore severely reducing the fill factor.